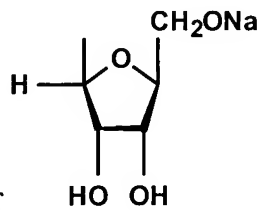
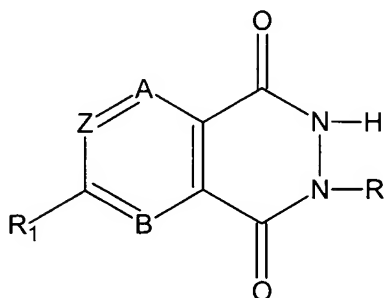


**AMENDMENTS TO THE CLAIMS**

**Please rewrite the claims as follows:**

Claims 1-42 (Canceled)

43. (NEW) Agent for producing a normalization effect on endocellular processes, the agent is capable of interacting with adenosine-sensitive receptors of cells having abnormal endocellular processes, in particular interacting with adenosine-sensitive receptors on a membrane of non-nuclear cells, interacting with adenosine-sensitive receptors inside the nuclei-containing cells, the agent is capable of eliminating the endocellular metabolic acidosis, binding the free radicals excessively formed in a cell, in particular binding the free-radical forms of oxygen excessively formed in a cell, and it is capable of normalizing the nitrenergic mechanisms of cells and it is capable of decreasing the aggregation of thrombocytes, wherein the agent is the compound having a general structural formula:



where R is selected from the group consisting of  $\text{Li}, \text{Na}, \text{K}$ ;

and  $\text{R}^1$  is selected from the group consisting of  $-\text{H}, -\text{NH}_2, -\text{Br}, -\text{Cl}, -\text{OH}, -\text{COOH}$ ;

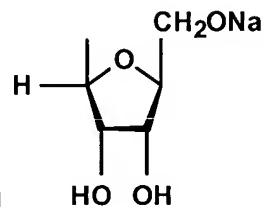
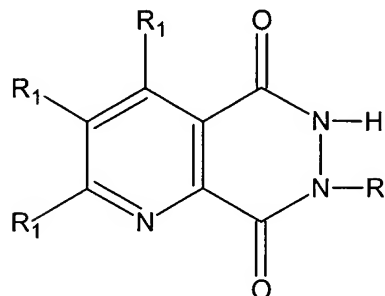
B is selected from the group consisting of  $-\text{N}=\text{}$  and  $-\text{CR}^1=\text{}$ ;

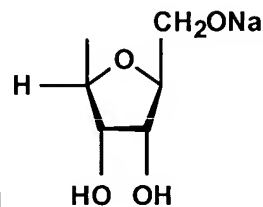
Z is selected from the group consisting of  $-\text{CR}^1=\text{}$  and  $-\text{N}=\text{}$ ; and

A is selected from the group consisting of  $-\text{N}=\text{}$  and  $-\text{CR}^1=\text{}$ ;

with the proviso that when A is  $-N=$ , then B is  $-N=$  and Z is  $-CR^1-$ , and pharmacologically acceptable salts thereof.

44. (NEW) The agent as claimed in claim 43, wherein the compound is a derivative of pyrido [2,3-d]-6H-pyridazine-5,8-dione having a general formula:



where R is selected from the group consisting of Li, Na, K, and ; and  $R^1$  is selected from the group consisting of  $-H$ ,  $-NH_2$ ,  $-Br$ ,  $-OH$ ,  $-COOH$ .

45. (NEW) The agent as claimed in claim 43, wherein the compound is selected from the group consisting of:

sodium salt of 7-( $\beta$ -B-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione,

sodium salt of 4-amino-7-( $\beta$ -B-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione,

sodium salt of 3-bromine-7-( $\beta$ -D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione,

disodium salt of 4-hydroxy-7-( $\beta$ -D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione,

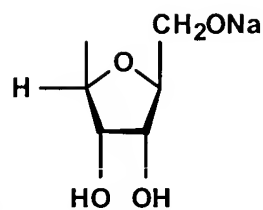
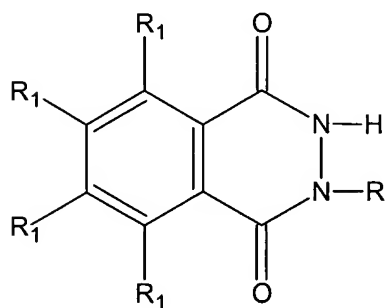
disodium salt of 3-carboxy-7-( $\beta$ -D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione,

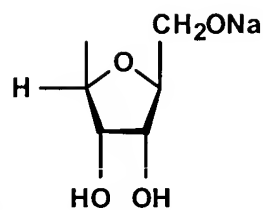
lithium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione,

sodium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione,

potassium salt of pyrido[2,3-d]-6H-pyridazine-5,8-dione.

46. (NEW) The agent as claimed in claim 43, wherein the compound is a derivative of benzo[d]-3H-pyridazine-1,4-dione, having a general formula:



where R is selected from the group consisting of Li, Na, K, and ; and R<sup>1</sup> is selected from the group consisting of -H, -NH<sub>2</sub>, -Cl, -OH, -COOH.

47. (NEW) The agent as claimed in claim 43, wherein the compound is selected from the group consisting of:

sodium salt of 2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione,

sodium salt of 5-amino-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione,

sodium salt of 6-amino-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione,

sodium salt of 5-chlorine-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione,

disodium salt of 5-hydroxy-2-(β-D-ribofuranosile)benzo[d]-3H-pyridazine-1,4-dione,

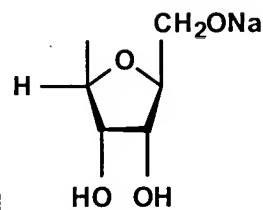
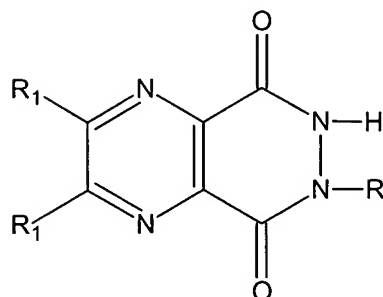
lithium salt of 5-amino-benzo[d]-3H-pyridazine-1,4-dione,

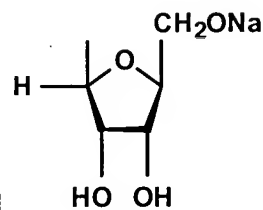
sodium salt of 5-amino-benzo[d]-3H-pyridazine-1,4-dione,

potassium salt of 6-amino-benzo[d]-3H-pyridazine-1,4-dione,

disodium salt of 5-hydroxy-benzo[d]-3H-pyridazine-1,4-dione,  
disodium salt of 6-carboxy-benzo[d]-3H-pyridazine-1,4-dione.

48. (NEW) The agent as claimed in claim 43, wherein the compound is a derivative of pyrazine[2,3-d]-6H-pyridazine-5,8-dione, having a general formula:



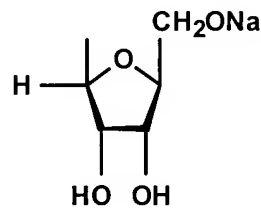
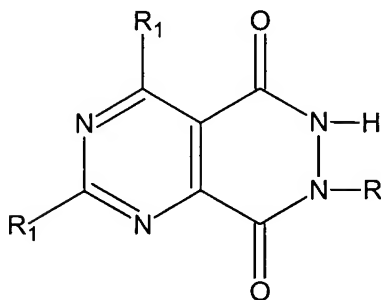
where R is selected from the group consisting of Li, Na, K, and ; and  
R<sup>1</sup> is selected from the group consisting of -H, -NH<sub>2</sub>, -Br, -OH, -COOH.

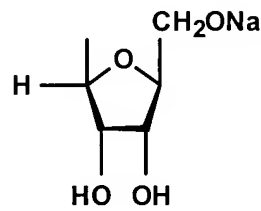
49. (NEW) The agent as claimed in claim 1 wherein the compound is selected from the group consisting of:

sodium salt of 7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
sodium salt of 2-amino-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
sodium salt of 3-amino-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
sodium salt of 3-bromine-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
disodium salt of 2-hydroxy-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
disodium salt of 2-carboxy-7-(β-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione,

lithium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
sodium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione,  
potassium salt of 3-bromine-pyrazine[2,3-d]-6H- pyridazine-5,8-dione,  
sodium salt of 2-amino-pyrazine[2,3-d]-6H-pyridazine-5,8-dione.

50. (NEW) The agent as claimed in claim 43, wherein the compound is a derivative of pyrimido[4,5-d]-6H-pyridazine-5,8-dione having a general formula:



where R is selected from the group consisting of Li, Na, K, and ; and  
R<sup>1</sup> is selected from the group consisting of -H, -NH<sub>2</sub>, -Br, -OH, -COOH.

51. (NEW) The agent as claimed in claim 43, wherein the compound is selected from the group consisting of:

sodium salt of 7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
sodium salt of 2-amino-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
sodium salt of 4-amino-7(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
sodium salt of 2-bromine-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
sodium salt of 4-hydroxy-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,

sodium salt of 4-carboxy-7-( $\beta$ -D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
lithium salt of pyrimido[4,5-d]-6H-pyridazine-5,8-dione ,  
sodium salt of 2-amino-pyrimido[4,5-d]-6H-pyridazine-5,8-dione,  
potassium salt of 4-bromine-pyrimido[4,5-d]-6H-pyridazine-5,8-dione.

52. (NEW) The method of normalizing of endocellular processes when abnormal conditions induced by the endocellular metabolic acidosis and/or diseases of nitrergic mechanisms of cells and/or harmful actions, which method comprises a therapeutically effective amount of the agent as claimed in claim 43 with cells for providing said normalizing.

53. (NEW) The method as claimed in claim 52 wherein said cells are in in vitro culture.

54. (NEW) The method as claimed in claim 52 wherein said cells are in in vivo and said method is used to treat a disease or disease condition induced by the endocellular metabolic acidosis and/or diseases of nitrergic mechanisms of cells and/or harmful actions.

55. (NEW) The method to decreasing the aggregation of thrombocytes, which method comprises administering a therapeutically effective amount of the agent as claimed in claim 43 for decreasing the aggregation to desired level with desired duration of decreasing.

56. (NEW) A pharmaceutical composition containing a biologically active ingredient and a pharmaceutically acceptable carrier wherein the biologically active ingredient is a pharmaceutically effective amount of a agent according to claim 43.

57. (NEW) The composition as claimed in claim 56 wherein the active ingredient is a

salt selected from the group consisting of salts of alkaline and alkaline-earth metals.

58. (NEW) The composition as claimed in claim 56 wherein the active ingredient is a composition comprising several salts selected from the group consisting of salts of alkaline and alkaline-earth metals in any their quantitative ratio.

59. (NEW) The composition as claimed in claim 56 wherein the active ingredient is a salt selected from the group consisting of hydrochlorides, hydrobromides, sulfates, phosphates, citrates, tartrates, fumarates, oxalates, maleates, acetates, nitrates.

60. (NEW) The composition as claimed in claim 56 wherein biologically active ingredient is in a liposomal form.

61. (NEW) The composition as claimed in claim 56 wherein biologically active ingredient is a fine powder of an active ingredient not necessary with carrier.

62. (NEW) The composition as claimed in claim 56 wherein the pharmacologically acceptable carrier is a composition contains one or more pharmacologically active additives.

63. (NEW) The composition as claimed in claim 56 wherein the pharmacologically active additives are selected from the group consisting of stabilizers, dispersers, aromatizers emulsifiers, conductors, bioavailability rising means.

64. (NEW) The composition as claimed in claim 56 wherein the composition is made in a medicinal form providing a controllable release of biologically active ingredient.

65. (NEW) The composition as claimed in claim 56 wherein composition is adapted to administration by a method selected from the group consisting of intravenous, intramuscular, oral, parenteral, aerosol, rectal, vaginal, epicutaneous, through-skin, intranasal administration, and administration by overlay.

66. (NEW) The composition as claimed in claim 56 wherein the composition is adapted to delivery to a place of administration by means of a device.

67. (NEW) The composition as claimed in claim 56 wherein the composition is adapted to administration in a dose amount.

68. (NEW) The composition as claimed in claim 56 wherein the composition is adapted to application in a solid, semi-solid, liquid, suspension, or aerosolic form.

69. (NEW) The composition as claimed in claim 56 wherein the composition is adapted to arrangement in pharmaceutically acceptable overlays.

70. (NEW) The composition as claimed in claim 56 wherein the composition is adapted to administration in a medicinal form selected from the group consisting of tablets, granules, globules, powders, capsules, ampoules, dry preparations, a suppository, tampons, ointments, gels, sols, solutions for injection, suspensions, emulsions, drops, syrups, plasters, applications, films, aerosols, and sprays.